DOCUMENT RESUME

ED 208 335 CG 015 512

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TITLE Roe Revisited: A Study of Childhood Experience of Physicists, Seminary Teachers and Athletes.
PUB DATE 81
NOTE 16p.; Best copy available.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Athletes; *Career Choice; *Child Development; Comparative Analysis; Disadvantaged Youth; *Family Environment; *Family Influence; Graduate Students; Parent Child Relationship; Physics; *Psychological Characteristics; Teachers; Theological Education; Theories
IDENTIFIERS *Roe Occupational Classification

ABSTRACT

Research has provided only partial support for Anne Roe's theory of career development that states that childhood experiences lead eventually to patterns of adult vocational choice. To determine the validity of Roe's theory about career choice, childhood experiences, and family climates, male physics students (N=15), seminary teachers (N=15), and student athletes (N=15) participated in tape-recorded interviews using Nachmann's instrument on family climates. Although differences were not significant, they occurred in the predicted directions, i.e.,: (1) physicists experienced deprivation more often than athletes during childhood; (2) mothers were stronger figures than fathers in the childhoods of the teachers; (3) fathers were stronger figures than mothers in the athletes' childhoods; and (4) personal superiority was emphasized more in the early experiences of the athletes. However, aggressive impulses in the early experiences of the seminary teachers were more acceptable than for the athlete group; discipline was also a more masculine and repressive pattern in the childhood behaviors of the athletes. The findings suggest a lack of support for Roe's theory. (Author/RC)

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Roe Revisited: A Study of Childhood Experience of Physicists, Seminary Teachers, and Athletes

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1981

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Roe Revisited:
A Study of Childhood Experience of Physicists,
Seminary Teachers, and Athletes

Roe's theory states that childhood experiences lead eventually to patterns of adult vocational choice. She described three types of family climate as avoidance, acceptance, and emotional concentration and designated occupational groups that follow in later life. Research has provided only partial support for the theory although many studies (Zytowski, 1968) have been reported since her book was published in 1956. These have varied in design from research with children's perception of ongoing family climates and expressed future vocation choice (Green & Parker, 1965) to a study of retrospective perceptions of employed adults (Powell, 1960).

Method

Graduate student majors were selected representing, according to theory, accepting and avoiding family climates. Fifteen male physics students and fifteen male seminary teachers pursuing advanced degrees were selected. Students participating were white and of North American origin. They otherwise consisted of almost all of the graduate students in those fields enrolled in a large western university. Each of the seminary teachers, representing as a group accepting family backgrounds, had at least one year of secondary teaching and related

counseling experience.

A third group of 15 undergraduates designated as "outstanding competitive athletes" were chosen from lists of 15 names submitted by 5 coaches representing the university basketball, track, football, and baseball teams. Names that appeared on at least 2 lists were selected. All were white and, as in the case of the other groups, most were from the same religious background. Roe's theory indicated that choice of avocations as well as occupations may reflect family climate antecedents. This and the apparent contrast of this group from the other two were the rationale for investigating this nongraduate student athlete group. In terms of family climates, the athlete group represented the avoiding category in Roe's theory.

Tape-recorded interviews were conducted with each of the 45 students. Inverviews followed Nachmann's instrument on family climates (Nachmann, 1957). Each subject had 19 items read to him. Information was recorded in note form on a broad range of topics relating to family climate and childhood experience as remembered by the subjects. Notes were evaluated immediately after each interview in respect to 8 family climate-related hypotheses. All notes and 15 randomly selected interview tapes were checked for reliability by 4 raters. Since the mean percentage agreement of raters with the evaluator was 86 percent, the data was considered reliable. Students also took a modified

version of McGuire's Index of Value Attitudes (McGuire, 1949) to investigate parental socioeconomic status related to one of the hypotheses.

In terms of the study's hypotheses and based on other research (Roe, 1956; Johnson, Hutton, & Johnson, 1954; Rigb[illegible] 1939), the three groups were described as follows:

> The seminary teachers would come from an accepting family climate, identify with their mothers, have experienced severe deprivation in childhood, and be relatively low in socioeconomic status.
>
> The physicist group would come from an avoiding family climate, higher socioeconomic background, have experienced severe deprivation in childhood, and not strongly identify with either parent.
>
> The athletes, also representing an avoiding family climate, would identify with their fathers and yet be fearful of them. Discipline practices would have been severe, an emphasis placed on being better than one's peers, and little opportunity given or permitted for expression of aggression in childhood training. Socioeconomic rankings would also be lower in this group.

Seven of the eight hypotheses employed the chi square statistic using the one-tailed test. The first hypothesis utilized the t test. The .05 level of significance was used throughout the study.

Results

The following results were obtained and are reported in Table 1 for the first hypothesis and Table 2 for the seven other hypotheses.

The physicists' parents had a significantly higher ($p < .05$) socioeconomic ranking than the parents of the athletes and the seminary teachers.

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Insert Table 1 about here

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Though not significant at the .05 level, differences were in the predicted direction in the following four hypotheses.

The physicists more often than the athletes group will have experienced severe and traumatic deprivation in childhood.

The mother more often will have been a strong and adequate figure than the father in the childhood of the seminary teachers than is true in the other two groups.

The father will have been more often a strong and adequate figure than the mother in the childhood of

the athletes than in the other two groups.

Personal superiority will have been more strongly emphasized in the early experience of the athletes than in the other two groups.

There was no statistical difference in the following hypothesis. The seminary teachers more often than the athlete group will have experienced severe and traumatic deprivation in childhood.

The differences were in the opposite direction predicted in the case of the following two hypotheses. In the case of the first, the difference was significant ($p < .05$). Aggressive impulses in the early training of the seminary teachers will have been more accepted than in the athlete group. Discipline will have followed a more masculine and repressive pattern in the childhood of the athletes than in the other two groups. Further research is recommended as these findings suggest the possibility that athletes may come from accepting rather than avoiding family climates.

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Insert Table 2 about here

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The following results were obtained but were not originally hypothesized. Generalizations, therefore, were not made beyond this study. Further research is recommended in each case.

When a two-tailed chi square test was employed, the fathers of the seminary teachers were significantly more engaged in farming or related occupations than the fathers of the athletes ($p < .05$).

Thirty-five of the forty-five university students interviewed had experienced severe and traumatic deprivation during the first ten years of life. Deprivation was defined as experiences judged by the raters to have been significant and upsetting in the first ten years of life.

The mothers of the athletes had more education than the fathers of the athletes. This finding did not reach significance ($p > .05$). However, based on mean years of education, mothers in this group, unlike the fathers, had some education beyond high school.

There were more marital difficulties among the parents of the athletes than the parents of the physicists and the seminary teachers. This finding was significant ($p < .05$) only in the case of the physicists, but it was not significantly related to the mothers of either group having more education than the fathers.

Both the physicists and the seminary teachers had experienced more severe and tramatic physical deprivation than the athlete group. This finding was significant only in the case of the seminary teachers when the two-tailed test was applied

($p < .05$). Prolonged illness and physical handicaps were most frequently reported physical problems. Further research was recommended because of the direction of the differences. Certain kinds of deprivation may be related to specific occupational areas.

Discussion

As in the majority of other studies, Roe's theory is not supported by the data. While most results were in the predicted direction only one reached significance. The theory does have an attractive clinical feel, but it is oversimplified in its emphasis. The various possible reactions of the child to family climate may be more important than the family climate itself. The quality of interactions with either parent also may be more important than supposed.

Limiting factors of the research design are noted. In addition, although not directly related to this study, others have criticized Roe's vocational groupings and the variety of theoretically unrelated activity within them (Switzer, Grigg, Miller, & Young, 1962; Powell, 1960). Retrospective memory methods imposed by the interviewer on the students as well as the small sample size may have affected the results. A third occupationally oriented graduate student group might have been more appropriate than using undergraduate athletes. The common religious factor may have had an effect as well as the western

setting of the university.

There are so many vocational-choice determinants that it is a temptation to grasp at theories offering neat and clinically appealing answers. By contrast, counseling experience and a review of the literature indicate such a variety of vocational determinants as to make the theory building process very difficult. Parental influence, social class membership, formal education, the state of the job market, labor conditions, etc. are stressed by sociologists and economists. Psychologists emphasize needs, interests, self-concept, values, and motivation. Other theorists stress concepts that are psychoanalytic, trait and factor, and developmental. Hewer (1963), reviewing theories of vocational choice, doubts the possibility that a valid theory relating such disparate elements can be constructed. She concluded that the counselors should draw on many theories, take time, have patience, and resist imposing personal values in working with students.

On the other hand, if the purpose of a theory is to generate testable hypotheses, then Roe's contribution has been important. Researchers continue to be attracted to her conceptual framework even when the bulk of the research has not produced strongly supporting results. Furthermore negative, nonsignificant, or incidental findings often make contributions to knowledge that others can follow. And, in the case of Roe's

theory, most published researchers have designed their studies to go beyond what has been done before.

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Table 1

Analysis of Socioeconomic Rankings of Physicists and Athletes/Seminary Teachers

Group N=15	Means of Socioeconomic Ranking[a]	S.D.	t Ratio df=28
Physicists	3.27	.97	
Athletes/ Seminary Teachers[b]	4.13	1.16	2.10*

[a]Rankings based on seven point scale with lowest number receiving highest ranking.
[b]Rankings of parents of both athletes and seminary teachers were the same.
*$p < .05$

Table 2

Chi Square Analysis of Childhood Experience of Physicists, Seminary Teachers, and Athletes[a]

Hypothesized Direction of Difference	Physicists (N=15)			Athletes (N=15)			Seminary Teachers (N=15)		
	yes	no	X^2	yes	no	X^2	yes	no	X^2
Dominant Mother (teachers)	4	8	.06	5	10	.09	6	7	---
Dominant Father (athletes)	8	4	.17	10	5	---	7	6	.09
Severe Deprivation (teachers) (physicists)	13	2	---	11	4	.21	11	4	---
Repressive Discipline (athletes)	3	12	.01	4	11	---	7	8	2.30[b]
Superiority Emphasis (athletes)	2	13	0.00	3	12	---	1	14	.29
Aggressive Impulses Accepted (teachers)	no hypothesis			14	1	5.21[c]	10	5	---

[a]One-tailed tests using Yates' correction when appropriate. When cell sums within groups are less than 15, decisions could not be made.
[b]Difference opposite of hypothesized direction. $P > .05$ using two-tailed test.
[c]Difference opposite of hypothesized direction. $P < .05$ using two-tailed test.